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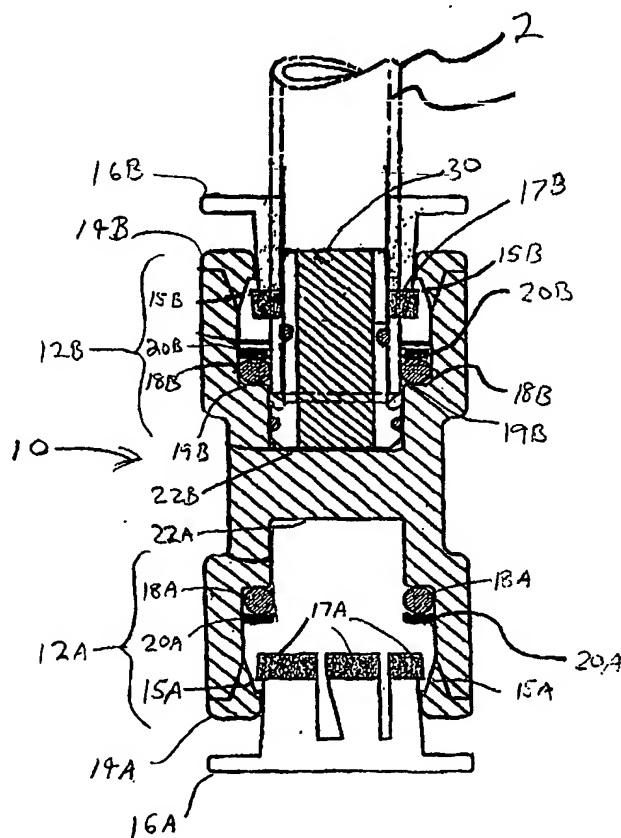
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(54) Title: STABILIZER-SEAL-INSERT FOR PUSH-IN TUBE COUPLINGS



(57) Abstract: A push-in type coupling system has a sleeve (12A, 12B) with a primary seal (18A, 18B), and a pre-installed tube insert (30). The insert (30) can be integrally formed as part of the coupling (1), or included as a separate piece in the coupling (1). The insert (30) preferably has at least one secondary seal (38, 40), which is advantageously disposed around the base (34) of the insert (30) and/or around the shaft (32) of the insert (30). The base (34) is preferably chamfered (42) to facilitate insertion of the insert (30) into the coupling (1), and can advantageously have a shoulder (35) that cooperates with a retaining ring (26A, 26B) of the coupling (1) to impede accidental removal of the insert (30) from the coupling (1).

WO 2004/063614 A3



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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : F16L 21/06

US CL : 285/243, 322, 369, 374

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 285/243, 322, 369, 374

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6, 170, 887 B1 (SALOMON-BAHLS et al) 09 January 2001 (09.01.2001), see entire document.	1, 4-5, 8-9, 11-12, 14-16
X	CH 667317 A5 (VIEGENER) 30 September 1988 (30.09.1988), see entire document.	1-7, 9-13, 15-16

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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